

A NEW SPECIES OF *SARCOCHILUS* R. Br. (ORCHIDACEAE) FROM
AUSTRALIA

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ABSTRACT

A new species of *Sarcochilus* R. Br. is described for the forthcoming
Flora of New South Wales.

KEY WORDS: *Sarcochilus*, New South Wales, Australia, Orchi-
daceae

INTRODUCTION

The genus *Sarcochilus* in Australia comprises about sixteen species distributed along the east coast. A taxon, suspected to be an undescribed species and known to orchid growers for some years, was studied in the field and compared with related taxa. That taxon is described here at species rank.

Sarcochilus aequalis D. Jones et M. Clements; species nova affinis *S. hartmannii* F. Muell. a qua floribus fulvis et racemis perbrevioribus differt.

TYPUS: cultivated Australian National Botanic Gardens, ex Endales Trail, north-west of Werrikimbe National Park, *L. Barton s.n.*, (D.L. Jones 2952), 6 October 1988 (HOLOTYPE: CBG; Isotypi: CBG, NSW).

Lithophyte forming small to extensive, crowded clumps. Stems 10-20 cm long, erect to decumbent, sparsely branched, old parts covered with frayed leaf sheaths. Leaves 4-8 per stem, 8-12 cm x 1.5-2.0 cm, linear-oblong, spreading to slightly recurved, conduplicate, straight to slightly falcate, coriaceous, usually yellowish green. Racemes 1-4 per stem, 6-12 cm long, erect or semi-erect,

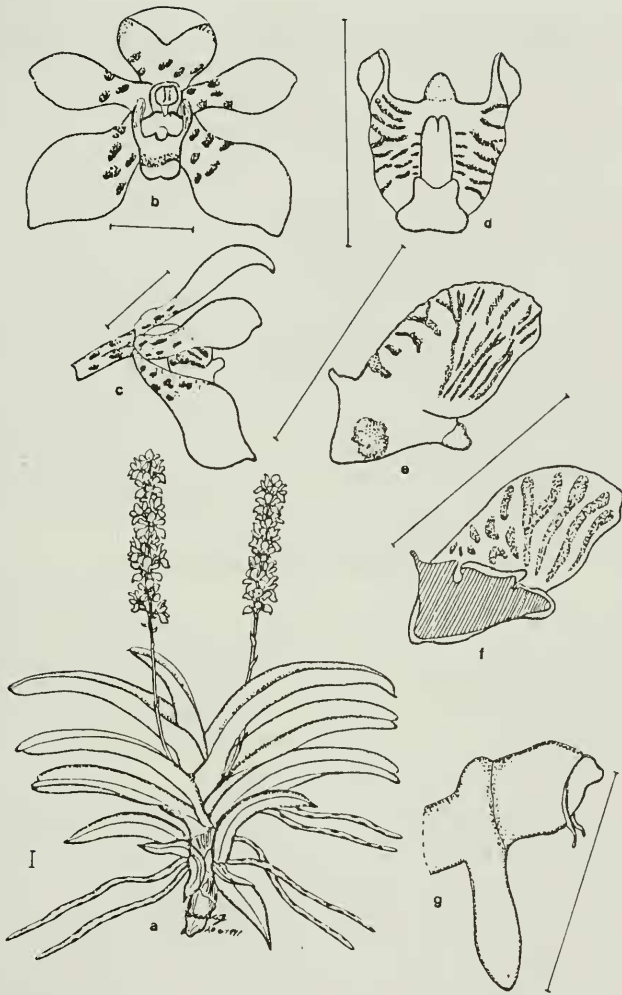


Figure 1. *Sarcochilus aequalis*. a, flowering plant; b, flower from front; c, flower from side; d, labellum from above; e, labellum from side; f, longitudinal section of labellum; g, column from side. Scale bar for all = 5 mm.

bearing 5-10, crowded flowers; peduncle about equal in length to rachis. Flowers 2.0-2.5 cm across, cream with a few reddish spots towards the base of the perianth segments and red bars on the labellum; perianth segments cupped to spreading. Floral bracts ca. 2 mm x 2 mm, ovate, acuminate. Pedicels 8-12 mm long, mottled and spotted with dark purple. Ovary 3-5 mm long, linear-ovoid. Dorsal sepal 9-12 mm x 5-7 mm, broadly elliptical, obtuse, imbricate, narrowed to base. Lateral sepals 9-12 mm x 4.5-7.0 mm, elliptical to broadly elliptical, divergent, obtuse to subacute, narrowed to base. Petals 7.5-12.0 mm x 2.5-4.0 mm, oblong-spathulate, obtuse. Labellum 7-8 mm across when flattened, hinged at the base on a short claw; midlobe ca. 0.8 mm x 1 mm, yellowish; spur ca. 1.5-2.0 mm long, subconical, fleshy, obliquely decurved; callus consisting of a fleshy ridge extending along the center line of the midlobe, anvil shaped in longitudinal section; lateral lobes ca. 2.5-3.0 mm x 2.5-3.0 mm, orbicular, prominently striped with red. Column ca. 1.5 mm long, projected forwards from the ovary. Column foot ca. 1.5-2.0 mm long, at right angles to column, incurved near apex. Anther ca. 1.5 mm x 1.5 mm, with a very short, upcurved rostrum. Stigma ca. 0.6 mm across, sunken. Pollinarium ca. 1.7 mm x 1.2 mm; pollinia ca. 0.7 mm x 0.5 mm, orbicular, orange, waxy; stipe ca. 0.6 mm long; viscidium ca. 0.3 mm long. Capsule not seen.

Specimens Examined: No herbarium specimens occur apart from the type collection.

Distribution and Habitat: Reported by orchid growers to occur in suitable sites on the Northern Tablelands of New South Wales between the Clarence River and the Manning River. This species occurs in gorges and along steep slopes, growing on rock outcrops, usually in semishade or filtered sun. Plants have also been found growing on rocks adjacent to waterfalls.

Flowering period: August and September.

Affinities: *Sarcochilus aequalis* is closely related to *S. hartmannii* F. Muell., the type of which was collected from Spring Bluff near Toowoomba in southern Queensland (Clements 1989). Both species have been cultivated for many years and *S. aequalis* has been known by orchid growers as the southern form of *S. hartmannii*. It is easily distinguished from that species by its cream flowers which are borne on relatively short, stiffly erect racemes in which the peduncle and rachis are of similar length. In *S. hartmannii* the white flowers are borne on long, arching racemes, the peduncle of which is much longer than the rachis. When grown together in collections, growers report that *S. aequalis* consistently flowers two or three weeks earlier than *S. hartmannii*. The two species are not sympatric and in fact are separated by a distance of about 400 km.

Notes: *Sarcochilus aequalis* has been used in breeding programs to produce hybrid progeny.

Conservation Status: *Sarcochilus aequalis* is present in National Parks but is still threatened by collectors; suggested status is 3RC according to the cri-

teria of Briggs & Leigh (1988).

Etymology: From the Latin 'aequalis', of uniform or similar size; in reference to the similar size of the peduncle and rachis of the inflorescence.

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